

logical mechanists. He does not, as I understand him, maintain that the mechanical biology is literally true in principle, together with all its inevitable implications, such as the utter uselessness of mind, the utter inability of man to bend the course of events, however slightly, towards conformity with his ideals and desires. He asserts rather that the human intellect, or, at least, the intellect of the man of science, is unfortunately^ so constituted as to be unable to avoid thinking in that way.

The man of science, says Needham, has a mental twist which compels him to seek only mechanistic explanation of all events. This is, indeed, true of many of them. But fortunately it is a twist or kink which is due to peculiarities of their upbringing, and not to any cruelty of nature. And some of us know from our individual experience that one may acquire this twist in youth and get rid of it at a mature age.

Whereas Hogben asserts roundly the sufficiency of what is nowadays called the additive method, Needham makes some recognition of the importance of organization.

Hogben rejects the * concept' of organization and the truth that atoms and molecules in highly organized systems behave very differently from similar atoms in systems of low organization. He asserts : ' It is fundamental to our idea of a mechanism that it can be taken to pieces and put together again.* And of course that is generally true

of machines. Needham recognizes the fallacy of all this; for, says he: * The new conception of biological organ-

ization combines the insistence of vitalism
on the real
complexity of life with the heuristic
virtues of the
mechanistic practical attack/ Further, he
rightly says:
* The problem of organization is the central
problem of
biology, and the riddle of form is the
fundamental riddle/